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09/808,243	03/14/2001	Richard Muhlbacher	LEAR 0835 PUS	4800

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EXAMINER

THOMPSON, CAMIE S

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 05/09/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,243

Applicant(s)

MUHLBACHER ET AL.

Examiner

Camie S Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed on March 4, 2003 have been acknowledged.
2. Examiner acknowledges amended claims 1-6, 8-17 and 19-23 and newly added claims 24 and 25.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haeseker et al., U.S. Patent No. 4,479,992 in view of Caudill, Jr. et al., U.S. Patent Number 4,541,885 and in further view of Ohta et al., U.S. Patent Number 4,791,019.

The Haeseker patent is directed towards a roof lining for automobiles that consists of a decorative layer, an intermediate layer and a support layer as per instant claim 1, 2 and 22-23 (see Figure 1a, Figure 2b, and column 2, lines 23-65). Haeseker discloses an upper layer and a lower layer for the support layer system wherein the upper and lower layers are interconnected along their whole area of contact as per instant claims 1 and 2 (see Figure 2b). The reference does not disclose that the upper and lower foam panels of the support layer comprise of polyurethane as per instant claims 11 and 12. Caudill teaches a support system used in an automobile that has a decorative layer and intermediate layer as the Haeseker reference and the

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presently claimed invention. In addition, the Caudill reference teaches an upper layer of polyurethane foam fused to a lower layer of polyurethane foam wherein there is an adhesive layer serving to bond the two layers by pressing as per instant claims 1, 7, 11-12, 17, 21 and 23 (see abstract; column 1, lines 14-40 and column 3, lines 51-52). Caudill teaches the upper and lower foam provide rigidity and stiffness. It would have been obvious to one of ordinary skill in the art to modify the layers of Haeseker with polyurethane as the upper and lower foam layers to allow the support layer to be relatively light in weight yet have rigidity and strength. Neither Haeseker nor Caudill disclose that the polyurethane foam has an expanded pad layer with a continuous glass strand mat with reinforced glass fibers as per instant claims 8, 16 and 23. Ohta teaches polyurethane foam interior finishing material for the use in the interior of motor vehicles as does Haeseker, Caudill and the presently claimed invention (see abstract). Ohta teaches that the polyurethane foam has an expanded pad layer with a continuous glass strand mat with reinforced glass fibers primarily to rear side of the polyurethane foam material as per instant claims 8, 16 and 23. It would have been obvious to one of ordinary skill in the art to use a continuous strand mat with glass fibers on the back of the polyurethane foam because the mat would provide a soft feel and excellent rigidity and strength for better reinforcement (Ohta reference: see column 2, lines 41-51).

Haeseker discloses that the roof lining consists of pressed or resin bonded felts as per instant claims 1, 7 and 18 (see column 1, lines 27-30). In addition, the Haeseker reference also discloses that the support layer has a polyester fiber fleece facing away from the foam panels as per instant claims 9, 15 and 23 (see column 2, lines 24-29 and column 4, lines 5-6). Neither Haeseker nor Caudill disclose cushioning layers. Ohta teaches a cushion pad interposed between the support

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core and the decorative facing as per instant claim 10. Ohta teaches the conventional use of a cushioning pad in vehicle components to provide a soft feel and flexibility. It would have been obvious to one of ordinary skill in the art to use a cushioning pad so as to provide a soft feel and flexibility as per instant claim 14 (see Ohta reference: column 1, lines 27-31).

In Figure 1a, the Haeseker reference shows that the upper foam panel has a different material thickness than that of the lower foam panel as per instant claims 3, 4 and 6. It would have been obvious to one of ordinary skill in the art that because the upper and lower foam layers have different material thickness, each layer would then have different porosities in order to provide flexibility to the support layer system as per instant claim 13.

None of the references disclose the ratio of the thicknesses of the lower and upper foam panels as per instant claim 5. As shown in Figure 1a of the Haeseker reference, the upper foam panel has a smaller dimension than that of the lower foam panel. Haeseker also discloses that the support layer has a greater compressive strength than the intermediate and decorative layer because the support layer is compacted over a part of its extent to a closed layer of reduced thickness as per instant claim 19 (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art to have a ratio of material thickness for the upper and lower foam layers at 0.01 to 0.95 because the upper foam layer with greater thickness provides for greater compressive strength as per instant claims 5 and 20. Haeseker discloses a construction element for roof lining that possesses acoustic effectiveness (see column 1, lines 63-68). Figure 2b of the Haeseker reference shows upper and lower foam panel embodiment. According to Haeseker, the embodiment provides absorption of acoustic energy. Therefore, the lower and upper foam

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panels provide acoustic absorption as per instant claims 24 and 25 (see Figure 2b and column 2, lines 20-68).

Response to Arguments

5. Applicant's arguments filed March 4, 2003 have been fully considered but they are not persuasive. Applicant argues that there is no reason to combine the Haeseker and Caudill references. Both references are laminates and each have a support system. The polyurethane foam used in the support system of the Caudill reference provides stiffness and rigidity. Since both references are laminates the reason to combine the references is not without motivation. Applicant argues that the instantly claimed invention is used for a vehicle roof. Although the Caudill reference specifically teaches the laminate used as a vehicle seat cover, the Caudill reference is a laminate with a decorative layer, intermediate layer and support layer as is the Haeseker reference. Therefore, it would be expected that the laminates from each reference would act in the same manner and thus the Caudill reference would act as a vehicle roof lining. The patentability of a product is dependent upon the product itself and not the intended use. Applicant argues that the Ohta reference does not cure the deficiencies of the Haeseker and Caudill references for porosity, material thickness ratios. The porosity and thickness of the material affects the acoustic energy. Discovery of optimum values of a result effective variable involves only routine skill in the art in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA). Therefore, it would have been obvious to one of ordinary skill in the art to have the different porosities and material thickness ratios of the upper and lower foam panels as claimed by

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applicant in order to provide effective sound absorbing energy. Applicant argues that the Ohta reference does not disclose a separate reinforcing mat. Ohta teaches that a core separate from the expanded layer comprises a semi-rigid polyurethane foam layer with long glass fibers are in the form of a mat in order to retain the soft feel and possess rigidity and strength as shown in the Ohta reference in column 4, lines 6-23.

The rejection is maintained.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (703) 305-4488. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the Group are (703) 872-9310 {before finals} and (703) 872-9311 {after finals}.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Cynthia H. Kelly